

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (currently amended) A method of controlling relative dimensions between an original pattern present in a mold and a recorded pattern formed in a surface of a wafer, said method comprising:
defining a region on said surface in which to produce said recorded pattern;
creating dimensional variations in said original pattern by subjecting said mold to tensional stresses, defining a varied pattern;
bending said wafer to produce a contoured surface in said region, with said contoured surface and said mold having similar radii of curvatures, wherein bending said wafer further includes providing said contoured surface with an arcuate shape having a constant radius of curvature, with said mold conforming to said arcuate shape; and
recording said varied pattern in said ~~layer~~ region on said surface.

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (currently amended) A method of controlling relative dimensions between an original pattern present in a mold and a recorded pattern formed in a surface of a wafer, said method comprising:
defining a region on said surface in which to produce said recorded pattern;
creating dimensional variations in said original pattern by subjecting said mold to tensional stresses, defining a varied pattern;
recording said varied pattern in said ~~layer~~ region on said surface; and

8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein defining
10 further includes defining a plurality of regions on said surface in which to produce said
11 recorded pattern and bending further includes bending said wafer to provide a plurality of
12 contoured surfaces, each of which has a normal associated therewith centrally disposed
13 therein, and creating further includes providing said mold with a curved profile that is
14 radially and symmetrically disposed about an axis and successively orientating said axis
15 to extend parallel to each said normal associated with each of said plurality of regions.

1 6. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a surface of a wafer,
3 said method comprising:
4 defining a region on said surface in which to produce said recorded pattern;
5 creating dimensional variations in said original pattern by subjecting said mold to
6 tensional stresses, defining a varied pattern;
7 recording said varied pattern in said ~~layer~~ region on said surface; and
8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein creating
10 further includes providing said mold with a curved profile having a first radius of
11 curvature, and bending further includes providing said contoured surface with an arcuate
12 shape having a second radius of curvature.

1 7. (original) The method as recited in claim 1 wherein said mold includes a first
2 surface and a first neutral axis, separated therefrom a first distance, and said wafer
3 includes a second surface and a second neutral axis, separated therefrom a second
4 distance, with control of said dimensional variations being dominated by a greater of said
5 first and second distances.

1 8. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a surface of a wafer,
3 said method comprising:
4 defining a region on said surface in which to produce said recorded pattern;
5 creating dimensional variations in said original pattern by subjecting said mold to
6 tensional stresses, defining a varied pattern;
7 recording said varied pattern in said ~~layer~~ region on said surface; and
8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein creating
10 further includes providing said mold with a curved profile having a first radius of
11 curvature, and bending further includes providing said contoured surface with an arcuate
12 shape having a second radius of curvature, with said second radius of curvature matching
13 said first radius of curvature.

1 9. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a surface of a wafer,
3 said method comprising:
4 defining a region on said surface in which to produce said recorded pattern;
5 creating dimensional variations in said original pattern by subjecting said mold to
6 tensional stresses, defining a varied pattern;
7 recording said varied pattern in said ~~layer~~ region on said surface; and
8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein creating
10 further includes providing said mold with a curved profile that is radially and
11 symmetrically disposed about an axis to define a first radius of curvature, and bending
12 further includes providing said contoured surface with an arcuate shape radially and
13 symmetrically disposed about said axis to define a second radius of curvature.

1 10. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a surface of a wafer,
3 said method comprising:
4 defining a region on said surface in which to produce said recorded pattern;
5 creating dimensional variations in said original pattern by subjecting said mold to
6 tensional stresses, defining a varied pattern;
7 recording said varied pattern in said ~~layer~~ region on said surface; and
8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein creating
10 further includes providing said mold with a curved profile that is radially and
11 symmetrically disposed about an axis to define a first radius of curvature, and bending
12 further includes providing said contoured surface with an arcuate shape radially and
13 symmetrically disposed about said axis to define a second radius of curvature, with said
14 second radius of curvature matching said first radius of curvature.

1 11. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a surface of a wafer,
3 said method comprising:
4 defining a region on said surface in which to produce said recorded pattern;
5 creating dimensional variations in said original pattern by subjecting said mold to
6 tensional stresses, defining a varied pattern;
7 recording said varied pattern in said ~~layer~~ region on said surface; and
8 bending said wafer to produce a contoured surface in said region, with said
9 contoured surface and said mold having similar radii of curvatures, wherein creating
10 further includes providing said mold with a curved profile, while minimizing shear forces
11 on said wafer, and bending further includes providing said contoured surface with an
12 arcuate shape while minimizing shear forces on said wafer.

12. (previously presented) A method of controlling relative dimensions between an original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said method comprising:

defining a region on said layer in which to produce said recorded pattern;
bending said wafer to produce a contoured surface in said region, wherein bending said wafer further includes providing said contoured surface with an arcuate shape having a constant radius of curvature, with said mold conforming to said arcuate shape;
creating dimensional variations in said original pattern by bending said mold, defining a varied pattern, with said contoured surface and said mold having similar radii of curvatures; and
recording said varied pattern in said layer.

13. (cancelled)

14. (currently amended) A method of controlling relative dimensions between an original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said method comprising:

defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
bending said wafer to produce a contoured surface in said region;
creating dimensional variations in said original pattern by bending said mold, defining a varied pattern, with said contoured surface and said mold having similar radii of curvatures; and
recording said varied pattern in said region on said layer, wherein defining further includes defining a plurality of regions on said layer in which to produce said recorded pattern and bending further includes bending said wafer to provide a plurality of contoured surfaces, each of which has a normal associated therewith centrally disposed therein, and creating further includes providing said mold with a curved profile that is radially and symmetrically disposed about an axis and successively orientating said axis to extend parallel to each said normal associated with each of said plurality of regions.

1 15. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said
3 method comprising:

4 defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
5 bending said wafer to produce a contoured surface in said region;
6 creating dimensional variations in said original pattern by bending said mold,
7 defining a varied pattern, with said contoured surface and said mold having similar radii
8 of curvatures; and
9 recording said varied pattern in said region on said layer, wherein creating further
10 includes providing said mold with a curved profile having a first radius of curvature, and
11 bending further includes providing said contoured surface with an arcuate shape having a
12 second radius of curvature.

1 16. (original) The method as recited in claim 12 wherein said mold includes a first
2 surface and a first neutral axis, separated therefrom a first distance, and said wafer
3 includes a second surface and a second neutral axis, separated therefrom a second
4 distance, with magnification control being defined by a greater of said first and second
5 distances.

1 17. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said
3 method comprising:

4 defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
5 bending said wafer to produce a contoured surface in said region;
6 creating dimensional variations in said original pattern by bending said mold,
7 defining a varied pattern, with said contoured surface and said mold having similar radii
8 of curvatures; and
9 recording said varied pattern in said region on said layer, wherein creating further
10 includes providing said mold with a curved profile having a first radius of curvature, and
11 bending further includes providing said contoured surface with an arcuate shape having a

12 second radius of curvature, with said second radius of curvature matching said first radius
13 of curvature.

1 18. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said
3 method comprising:

4 defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
5 bending said wafer to produce a contoured surface in said region;
6 creating dimensional variations in said original pattern by bending said mold,
7 defining a varied pattern, with said contoured surface and said mold having similar radii
8 of curvatures; and

9 recording said varied pattern in said region on said layer, wherein creating further
10 includes providing said mold with a curved profile that is radially and symmetrically
11 disposed about an axis to define a first radius of curvature, and bending further includes
12 providing said contoured surface with an arcuate shape radially and symmetrically
13 disposed about said axis to define a second radius of curvature.

1 19. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said
3 method comprising:

4 defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
5 bending said wafer to produce a contoured surface in said region;
6 creating dimensional variations in said original pattern by bending said mold,
7 defining a varied pattern, with said contoured surface and said mold having similar radii
8 of curvatures; and

9 recording said varied pattern in said region on said layer, wherein creating further
10 includes providing said mold with a curved profile that is radially and symmetrically
11 disposed about an axis to define a first radius of curvature, and bending further includes
12 providing said contoured surface with an arcuate shape radially and symmetrically

13 disposed about said axis to define a second radius of curvature, with said second radius of
14 curvature matching said first radius of curvature.

1 20. (currently amended) A method of controlling relative dimensions between an
2 original pattern present in a mold and a recorded pattern formed in a layer of a wafer, said
3 method comprising:
4 defining a region on said ~~surface~~ layer in which to produce said recorded pattern;
5 bending said wafer to produce a contoured surface in said region;
6 creating dimensional variations in said original pattern by bending said mold,
7 defining a varied pattern, with said contoured surface and said mold having similar radii
8 of curvatures; and
9 recording said varied pattern in said region on said layer, wherein creating further
10 includes providing said mold with a curved profile, while minimizing shear forces on said
11 wafer, and bending further includes providing said contoured surface with an arcuate
12 shape while minimizing shear forces on said wafer.